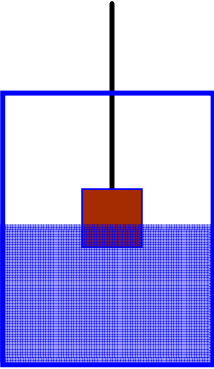


Buoyancy Sample Problem 3



A 1.5 kg block is hanging from a string and is submerged 25% in water. The density of water is 1000 kg/m^3 . If the block has a bottom area of 0.01 m^2 , and a height of 0.2 m...

- (a) what is the volume of the block?
- (b) what is the density of the block?
- (c) what is the buoyant force on the block?
- (d) what is the tension in the string?
- (e) at what level must the water be at for the string to lose its tension completely?